

**Amendments to claims:**

**This listing of claims will replace all prior versions and listing of claims in the application.**

**Please amend claims 15 and 21 as indicated.**

Claims 1-14 (cancelled).

Claim ~~15~~<sup>1</sup> (currently amended): A porous insulating film consisting essentially of a highly heat resistant polyimide resin film having a fine porous structure wherein:

a) fine continuous channels reaching to both surfaces of the insulating film in a nonlinear fashion have a mean pore size of  $0.01 - 2 \mu\text{m}$  in the center of the film and  $0.4 - 0.9$   ~~$0.14 - 2.8$~~   $\mu\text{m}$  at both surfaces of the film and a porosity of  $15 - 80\%$ ;

b) the polyimide resin film is prepared from a polyimide precursor solution and consists essentially of a polyimide obtained from the combination of at least one tetracarboxylic acid component and a diamine component; and

c) the insulating film has

a thickness of  $5 - 150 \mu\text{m}$ ,

a resistance to passage of air of from 30 sec/100 cc to 2000 sec/100 cc and

a heat shrinkage of not greater than about  $\pm 1\%$  after being heat-treated at  $105^\circ\text{C}$  for 8 hours and

does not contain a dense layer on either of the surfaces.

Claim 16. (previously presented): The porous insulating film according to claim 15, wherein the mean pore size in the center of the film is  $0.05 - 1 \mu\text{m}$ .

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Claim ~~17~~<sup>2</sup> (previously presented): The porous insulating film according to claim 15, wherein the porosity is  $30 - 80\%$ .

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Claim ~~18~~<sup>3</sup> (previously presented): The porous insulating film according to claim 15, wherein the thickness is  $5 - 100 \mu\text{m}$ .

<sup>4</sup>  
Claim ~~19~~. (previously presented): The porous insulating film according to claim ~~15~~,  
which is fabricated by a film casting method.

<sup>5</sup>  
Claim ~~20~~. (previously presented): The porous insulating film according to claim ~~15~~,  
which has a dielectric constant of no greater than 2.5.

<sup>7</sup>  
Claim ~~21~~. (currently amended): A porous insulating film consisting essentially of a  
highly heat resistant polyimide resin film having a fine porous structure wherein:

a) fine continuous channels reaching to both surfaces of the insulating film in a  
nonlinear fashion have a mean pore size of 0.01 – 2  $\mu\text{m}$  in the center of the film and 0.4 – 0.9  
~~0.14 – 2.8~~  $\mu\text{m}$  at both surfaces of the film; and

b) the polyimide resin film is prepared from a polyimide precursor solution and  
consists essentially of a polyimide obtained from the combination of at least one tetracarboxylic  
acid component and a diamine component and

c) the insulating film has

a thickness of 5 – 100  $\mu\text{m}$ ,

a resistance to passage of air of from 30 sec/100 cc to 2000 sec/100 cc,

a heat resistance temperature of at least 200°C and

a heat shrinkage of not greater than  $\pm 1\%$  after being heat-treated at 105°C

for 8 hours and

does not contain a dense layer on either of the surfaces.

<sup>8</sup>  
Claim ~~22~~. (previously presented): A battery separator comprising a porous insulating  
film according to claim 21.

<sup>10</sup>  
<sup>7</sup> Claim ~~23~~. (previously presented): The porous insulating film according to claim ~~15~~ or  
~~21~~, wherein the tetracarboxylic acid component is selected from a biphenyltetracarboxylic  
dianhydride, pyromellitic dianhydride and a benzophenonetetracarboxylic dianhydride.

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7 Claim ~~24~~ (previously presented): The porous insulating film according to claim ~~15~~ or ~~21~~, wherein the diamine component is selected from a phenylenediamine or a diaminodiphenylether.

6  
Claim ~~25~~ (previously presented): The porous insulating film according to claim 15, wherein the pores in the porous structure are arranged in the film substantially parallel to the film surfaces.

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Claim ~~26~~ (previously presented): The porous insulating film according to claim ~~23~~, wherein the biphenyltetracarboxylic dianhydride is 3,3',4,4'-biphenyltetracarboxylic dianhydride.

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Claim ~~27~~ (previously presented): The porous insulating film according to claim 21, wherein the pores in the porous structure are arranged in the film substantially parallel to the film surfaces.